/341 cont./

243 825 532 Parrots are veritable plagues for agriculture in the Chaco and cause great damage. In order to fight their voracious bands the Chiriguano make scarecrows by attaching to the tip of flexible poles the masks they wear during the carnival festivities and which they have no use for afterward (Fig. 8). It is the need to be constantly /342/ on the watch to repulse the intrusion of these formidable bands of plunderers which obliges the Indians to come and live in their fields as soon as the corn ripens. The children and young people have the task of frightening off by their shouts these insatiable marauders. As soon as they see or hear a flock of parrots, they emit a long modulation which, it seems, has the effect of scaring them. If 243 411 the parrots come too near or perch on the fields, the Indians make them flee by bombarding them with stones with their slings. They have two kinds of these. Wherever the Chiriguano [177] are in direct contact with the Quichua /Quechua/, these slings are of wool (Plate VII, 1 and 2); elsewhere, especially in the Caipipendí valley, they are of vegetable fibers and made according to the net technique (Plate VII, 3). No doubt the Chiriguano borrowed this weapon from the Andean populations. To be convinced of this it suffices to compare the slings of the Indians and half-breeds of the department of Tarija with that of the Chiriguano (Rosen, 1, Fig. 267, p. 261).

[825] Another means of scattering the birds is to stretch a string above the fields. I do not know the effect that this measure can have on them.

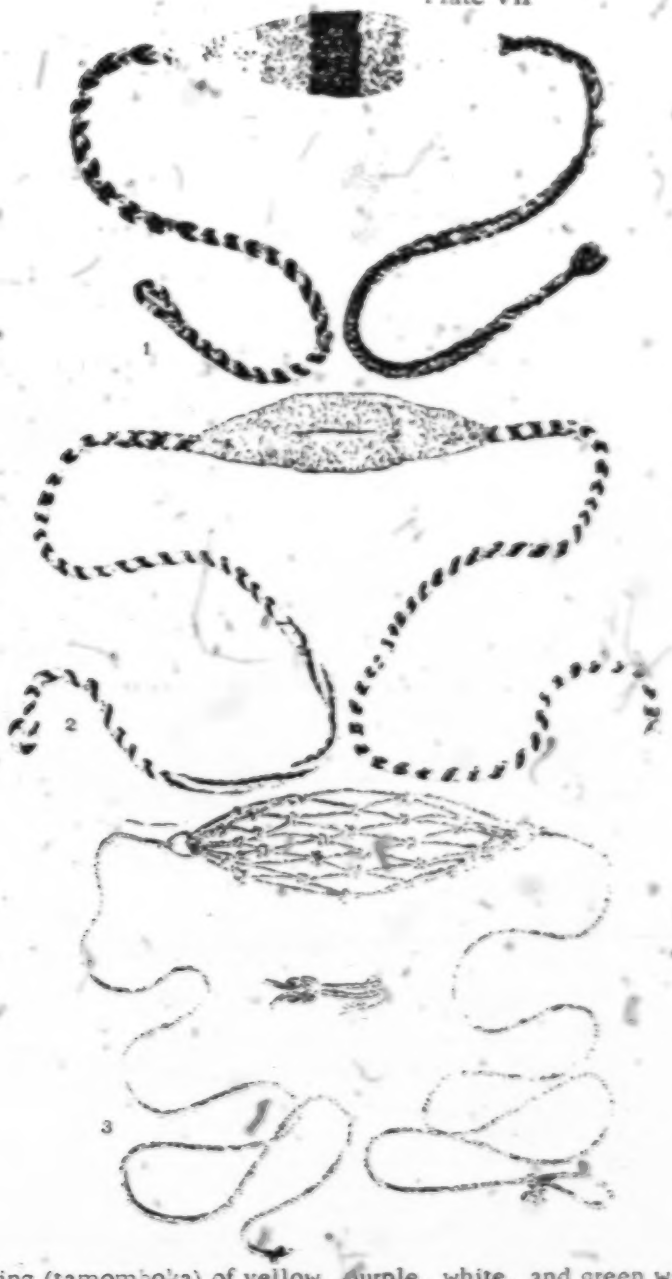
243 825 [351] The fields of the Chiriguano Indians are always surrounded by a high, thick hedge which protects them from animals, wandering cows and horses, which could get in and play havoc with them. Grasshoppers sometimes do them much harm. In the Caipipendí valley I saw a field in which they were swarming and which seemed to have been abandoned for this reason (1).

1. When grasshoppers are particularly numerous, the Chiriguano dig ditches which they make them go into and in which they bury them. (Diccionario Chiriguano-Español, etc., p. 83.)

1: Métraux--77 E-5 (1929) 1930 SF10 Chiriguano SF10

Plate VII

411



1. Sling (tamomboka) of yellow, purple, white, and green wool. Prov.: Cuevo. (1/4 nat. size.) 2. Sling of brown, green, and white wool. Prov.: Ivu. (1/5 nat. size) 3. Sling of vegetable fibers (wembé bark). Prov.: Carurutí. (1/4 nat. size.)

/345 cont./

433 224 178 Outside these official expeditions they doubtless used to hunt for pleasure or simply to interrupt the monotony of their menu.

224 411 [223] Quadrupeds were killed with arrows with lanceolate tips, originally of wood, today of iron (Plates VIII and IX, 2); small game, with arrows tipped with a barbed wooden rod (Plate IX, 3-5). Birds were taken in traps or felled with a special arrow having a splayed ferrule (Plates X-XI).

224 [231] Anyone who has seen the little dogs of the Chiriguano Indians, with elongated /346/ muzzle, pointed ears, short hair, and arched tail will ask with surprise how animals so miserable, stupid, and snappish could have been trained to render service to man. Nevertheless, such seems to have been the case. For hunting the peccary, for example, the Indians employ the dogs, who track them and /Figs. 12 and 13 appear here/ force them to hide in their dens, from which they are smoked out and felled with blows of a stick when they try to run away. At least this is how the inhabitants of the village of Saladito (upper Pilcomayo) told me they had killed a peccary which they showed me at the time I was there.

433 224 184 For the modern Chiriguano, hunting has lost its reason for existing as an activity having an economic character, except perhaps /Plates VIII, IX, X, and XI appear here/ /347/ /Fig. 14 appears here/ for those of this nation who live in the region of the upper Pilcomayo. At least this is the impression I had after examining their huts: the bedsteads or wooden cots were often covered with peccary skins and the old deerhorn awls (Fig. 12) numerous enough to be able to be exchanged for a trifle. The relative abundance of these objects proves that among these Indians hunting has not been relegated /Fig. 15 appears here/ to the rank of a simple sport and that it keeps, at least in part, its past importance. The contrast is striking if one then goes into the zone of the Franciscan missions: there, more peccary skins, more perforators made of deerhorn, more ostrich feathers. In the villages of the upper Pilcomayo there is no cabin, poor as it may be, in which a bow and a bundle of arrows are not slipped

[352] [412] [797] [411]

[TEXT Continues on P. 89]

: Métraux--83 E-5 (1929) 1930 SF10 Chiriguano SF10

Plate VIII

Uu
284

Arrows for war or hunting large game (huî iya). Chiriguano. The tip is an iron blade, except for No. 4 which ends in a slender piece of wood. Nos. 1, 3, and 4 come from Ivu; No. 2 from Tigüipa, and No. 5 from Pípi. (1, 2, 5 are 1/2 nat. size; 3 and 4, 1/3 nat. size.)

1: Métraux--8. E-5 (1929) 1930 SF10 Chiriguano SF 0

284
411

Plate IX

/Caption on following page./

/Caption for Plate IX on preceding page./

● 411

1. Arrow for hunting the yakú (pavo del monte /wild turkey/. Chiriguano. Proy.: Caipipendí. (1/4 nat. size ± .)

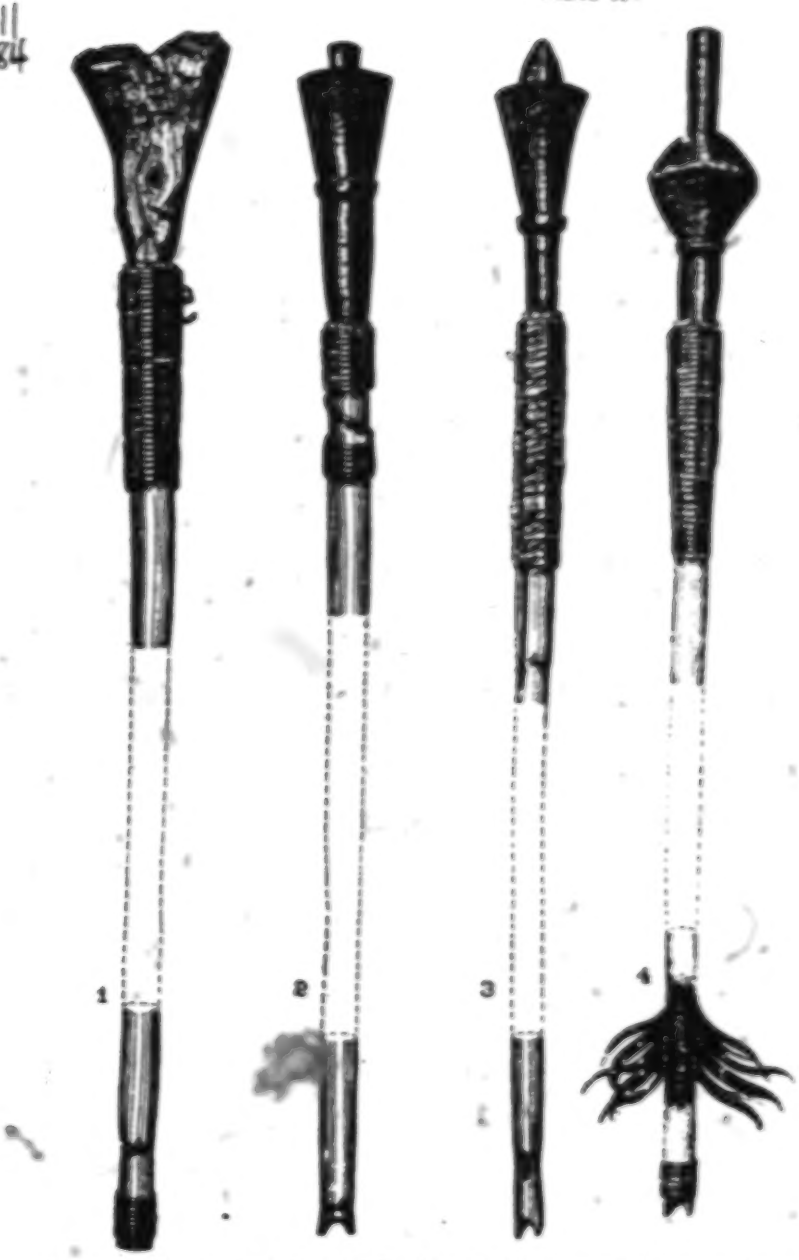
2. Arrow tipped with an iron rod wedged into the shaft with the aid of a wooden peg, perforated, and tied with a small cord. Reinforced with wembé bark. Prov.: Tintapaw. (1/2 nat. size ± .)

3-5. Arrows with barbed points. Prov.: Caipipendí. (1/3 nat. size ± .) Note: Arrow No. 5, as an exception, has three feathers.

1: Métraux--86 E-5 (1929) 1930 SF10 Chiriguano SF10

Plate X.

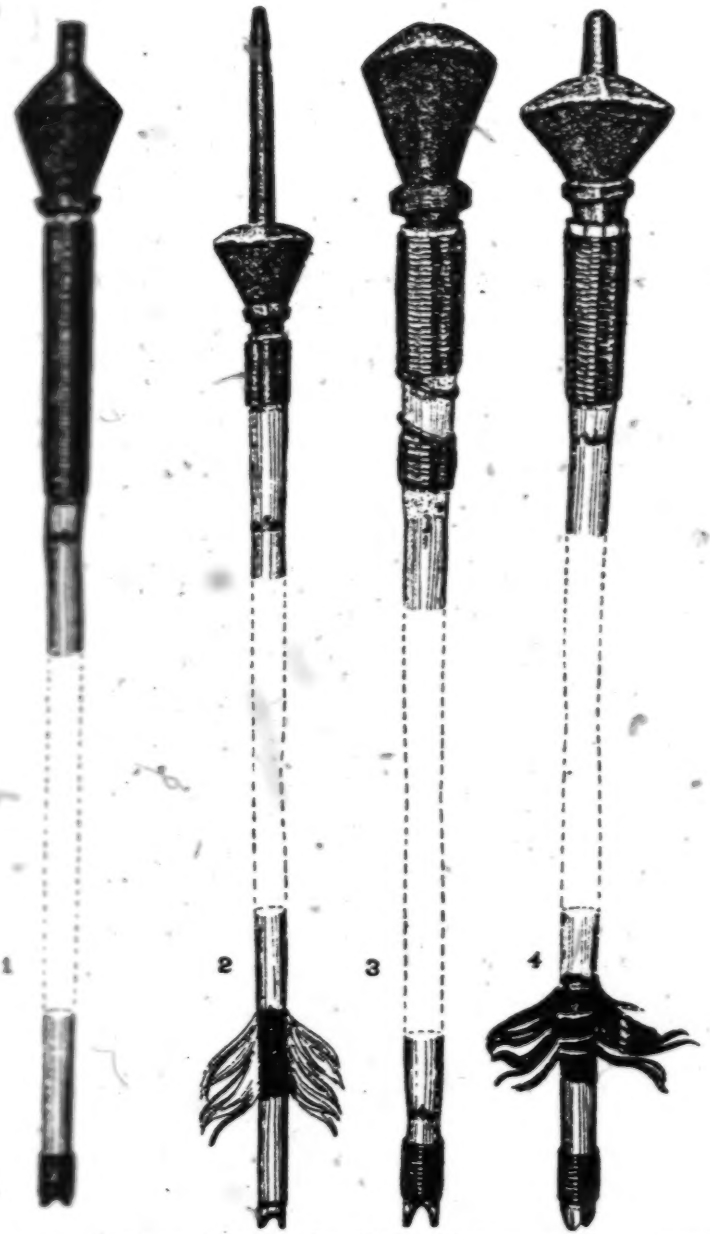
411
784



Arrows with splayed ferrule for felling birds or small mammals (songo). No. 1 comes from Ivu, No. 2 from Tintapaw, No. 3 from Tiwiraití (upper Pilcomayo), and No. 4 from Caipipendí. (1/2 nat. size.)

1: Métraux--87 E-5 (1929) 1930 SF10 Chiriguano SF10

41
284



Arrows with splayed ferrule for felling birds or small mammals (songo). Nos. 1 and 3 come from Ivu, Nos. 2 and 4 from Caipipendí. (1/3 nat. size.)

Fig. 14. Hunting arrow. Chiriguano. The point is formed by an iron rod to which a nail has been fastened to form a barb. This point is held in the shaft by means of a wooden peg. Prov.: Nawirenda. (1/4 nat. size.)

Fig. 15. Upper tip of a lorero (long wand with a noose at the end, with which the Chiriguano catch wild parrots they have attracted by means of tame ones). Prov.: Ivu. (1/3 nat. size.)

/347 cont./

433 224 184 [411] between the roof beams. Once out of this region the ethnographer will have all the difficulties in the world to acquire these weapons for his collections. If they are offered to him, they will be either a few souvenirs of former days kept by an old man or crudely made specimens without any value other than that of a toy or a sport accessory for some rare lover of hunting.

224 411 184 The Indians of the semi-independent valley of Caipipendí are still, in some villages, capable of making a bow and using it. The arrows, which I bought from them in rather large quantity, almost all belonged to a single type and were intended, from what they told me, for killing the yakú (pavo del monte /wild turkey/ (Penelope sp.). They are long reeds armed with two barbed wooden rods (Plate IX, 1). One must not conclude that the yakú, abundant as they may be, represent an appreciable food resource. Besides, hunting is [433] scarcely practiced except by the young men, who do it for [126] fun. The Indian who gave up to me the handsomest lot of [425] these arrows felt some remorse about it; for, as he explained to me, /348/ they belonged to his little boy, who would not fail to cry when he found out that his father had sold them without his consent.

857 868 224 Chiriguano children are even more ardent about shooting with a bow than ours. One can see them run around the village trying to shoot down with little miniature arrows (Plate XII, 2 and 4) the birds which light within their reach. Contrary to what took place formerly, once grown up they will not benefit from the skill they have thus acquired. /Fig. 16 appears here./

223 [126] Some Indians of the Caipipendí valley sold me large bunches of nandu feathers. I could not find out whether they had taken them from birds killed in the region or whether they had been hunting them in the east nearer to the great deserts. That would not have been at all improbable, for nandus are certainly not numerous in this region; in a month's stay I 287 439 did not see any. These feathers serve for fashioning /Fig. 17 appears here/ feather dusters, which the Chiriguano sell in the

[Text continues on p. 91]

1: Métraux--92 E-5 (1929) 1930 SF10 Chiriguano SF10

411
284

Plate XII

Arrows with splayed ferrule for felling birds or small mammals (songe). Nos 1 and 3 come from Ivu. Nos. 2 and 4 from Caipipendi. (1/2 nat.

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10
Chané SF8

MANUFACTURES

C
323
531

Pottery.—*Chiriguano* pottery is, for the beauty of its painted decoration and the variety of its forms, outstanding in modern South America. The mixed origin of *Chiriguano* culture is reflected in the two types of earthenware vessels. The plain pots for cooking and the large jars for chicha, which did not differ from similar vessels of the Paraguayan *Guaraní*, were ornamented with fingernail impressions (pl. 41, bottom, right).

C
[171]

C
Ca
301
C
Ca
411
C
Ca
412
Ca
534
531
301
Ca
301
531
Ca
524

FIGURE 58.—*Chiriguano* and *Chané* manufactures. *a*, Silver pincers used as breast ornament; *b*, bird arrow point; *c*, handle to wooden spade; *d*, wooden whistle used as ornament; *e*, tin labret with mosaic inlay; *f*, *Chané* pea-shooter. (*a*, *d*, *e*, Redrawn from Rosen, 1924; *b*, *c*, *f*, from Nordenskiöld, 1930, figs. 28, 15, 3, 34.)

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10
Chane SF8

Fire.—For several generations the *Chiriguano* and *Chané* have used steel and flint for making fire. The fire drill is, however, remembered in their mythology.

Weapons.—The *Chiriguano* bow has an average length of 4 feet (1.2 m.); the stave is flat on the belly and convex on the back. Both ends are sharpened to prevent the string of twisted hide from slipping.

Arrows are tipped with carefully barbed rods, with two rods barbed along the outer edges, (fig. 59, *b*) with flat lanceolate heads, or with a conical knob (bird arrow). The arrows armed with two diverging rods are used to shoot large birds, such as the yacu (*Penelope* sp.). Fishing arrows of the *Chané* bristle with cactus thorns. Today arrows ending in a sharp wooden rod are rare, as the modern arrows are usually tipped with heavy wires. The shafts are made of cultivated reeds (*Arundo donax*). Formerly, the *Chané* used the uva grass (*Gynerium sagittatum*). Feathering, which is of the cemented type, is sometimes omitted.

The clubs of the *Chiriguano* in the 17th century were short and ended in a flat, oval head, a shape somewhat related to the ancient *Tupinamba* club. These clubs have disappeared (only a single specimen could be obtained in 1929 by Métraux) and have been replaced by simple cudgels that serve only to knock down wild pigs.

Chiriguano in direct contact with the *Quechua* have woolen slings; those living farther to the east have slings made of caraguatá fibers, which they use mainly to chase birds from the fields. The pellet bow is common among the *Chiriguano* and *Chané*, but is merely a toy for boys.

SOCIAL AND POLITICAL ORGANIZATION

Originally, the *Chiriguano* community consisted of a few extended families or lineages, strictly patrilineal. Modern villages are composed of many small biological families bound by relationship ties or by their allegiance to a common chief.

Chiriguano chiefs (*mburubicha*) of old were men distinguished by their courage, their eloquence, and often by their magic power. They enjoyed considerable prestige and held no little authority. Some of them (*tubicha rubicha*) extended their influence over a wide area and were recognized as a supreme chief by the local chieftains. The main function of a chief was to settle quarrels within the village, to punish thieves, to see that people worked in the fields at the proper time, to arrange feasts, and to lead his men in war. Chiefs also had right of eminent domain over the land. Sometimes a chief was assisted by an informal council consisting of shamans and of the oldest and bravest men of the community. As a rule, a chief, even if he was powerful, led the same type of life as any of his subjects; in recent time some chiefs had servants. Some aristocratic pride was evidenced by the members of their family.

/55cont./

*825 757 and not those veterans of several arrobas like gourds in the form of saddlebags, which are seen in abundance around Pozuelos, Piray, San Juan, and Pomabamba.

*136 *825 There is another large bird with the same instincts as the buzzard, called carcancho by the whites and "Caracara" by the Indians. It does not, however, kill calves; it does hunt and kill little lambs, suckling pigs, and chickens, disregarding with boldness and dissimulation the brood hen. /56/ This shameless, fearless bird is abundant everywhere and is capable of getting into kitchens and sticking its beak into the ollas; but its favorite spot is the corral, where it scratches about, looks for things, and eats, and like the most natural thing in the world it will pull out the entrails of a sleeping lamb or at the least blind it in one eye. The rascal gets into the nests of smaller birds and steals eggs or kills the young to eat them. All in all, it is a sad and ugly neighbor, with the result that all are its enemies, and some birds chase it out of their nests. Such is the practice of the bird that the Chiriguano call "Guirapipasa"; another called "Suiriri" gets on the shoulders of the carcancho and pecks it until it runs long distances.

[757] The Indians assert that carcancho fat is an efficacious remedy for the vision, and that they used it before modern medicines, which turned out to be more efficaceous and [262] active, were introduced. They eat its meat if it is fat. The [237] feathers of the carcancho and the buzzard are very strong, and [411] they put them on the ends of their arrows, so that they will not turn aside when they are shot and consequently will hit the mark better.

*136 [132] GOLONDRINA /swallow/. -- The heat is altogether too much at certain times of the year, with the thermometer in the shade up to 32° and in the sun up to 60°, but let it not be believed that this state of heat is the normal thing. There are months of the year, and in these months there are weeks and days, in which it is difficult to endure the cold, which is most intense in June and parts or all of July. As a result of this, the swallow, even here, is a pilgrim, emigrating at the end of April and returning at the beginning of October. There are some entirely black, and there are some with white breasts. The

4: Nino--255 M-3 (1893-1911) 1912 SF10 Chiriguano SF10

142
291
302
516
622
352
411

Cacique Gilraesa with His Family

/220 cont./

859 868 The boys have different ways of learning how to be accurate in shooting arrows and to be good hunters and brave warriors. In the field or in the woods they amuse themselves usefully ambushing and taking as a target little birds and even grasshoppers when there are any. and when they go back home they give proof of their manliness by sticking the arrow into the mortar in which their mother customarily grinds maize.

859 868 522 411 524 When the boys gather together in the town, they learn the use of the arrow, shooting it at a wooden wheel which one of them makes roll as fast as he can. This wheel is made of a type of round cactus which grows a cuarta or a little more and is called Zipepe. The boys, armed with arrows, line up, and the best one will succeed in driving his into the soft material of the zipepe. /221/ The zipepe is at the same time a school for target shooting and a game: of the latter they have 524 others which I shall name in passing. They have the Pinono, top. This is different from that of the towns of the Republic. It is a small gourd with a hole in the middle in the upper part. When they spin it, the air produces a prolonged sound like that of little calves who are lowing very gently, and from this comes its name. Pinono.

Another game for young and old is pelota, which has a definite season. This is when there is fresh maize, or the cold is beginning to be felt. They call it Topo, and it is done with the husk of fresh maize: thus, when the fresh maize season ends, the game of pelota also ends, and they amuse themselves with many other games that they have (1).

880

1. These will not be listed because this is not the subject of this chapter, and in addition it would be very tiring for the reader.

Arphlac--368 M-3 (1880-1911) 1912 SP10 Chirigwano SP10

412
411
534
283
352

Bow., arrows, etc. /on p-387 for additional explanation/.

/273 cont./

721 I am not going to consider the Chiriguano at war with the Incas or with the Spaniards or with the whites who occupy the region. I am going to consider him at war with his own kind, or with the inhabitants of /274/ other towns which border his. Sensitive to the extreme, the Indian will fight on any pretext, however minor it may be considered, such as the abduction of a woman, her attempted violation, cattle stealing, or any other offense: they are enough to make the pride of the native scheme for vengeance and carry it out without any loss of time.

721 173 643 [727] Among the Indians of Ivo there is still kept alive the memory of the four or five wars which the regional cacique Yaveáu of Cuevo and its vicinity waged against Yuti, where among the women killed was the wife of the Indian Cairama, who still lives in the Santa Rosa Mission: against Choreti, where, while retreating, he killed several whites: against Itau and Carapari, from where he brought a small cannon as booty: and against Parapiti, where he was defeated, having some 200 victims on the battlefield on the left bank of the river. It has already been seen in the preceding pages that the cause which brought about this prolonged and bloody war was the attempt of the cacique Gilracoti with regard to Yaveáu's wife, which he avenged to excess (1).

1. The cacique Yaveáu waged a war of extermination against all the towns noted, because they all fought on Gilracoti's side, but he could do nothing against Chituri, the cacique of Parapiti.

721 411 My readers, having thus understood that the Chiriguano is very warlike, must be convinced of another truth, that is, that they are prepared to take up arms on any occasion, from which it can be deduced also that it is a fact that in every house they had available as many bows as there were persons fit for war, in addition to having ready as many dozens of arrows, because it was a law that in war each warrior had to carry at least a dozen.

/274 cont./

Offensive War and Weapons

643 When a tribe was preparing to attack another, if it foresaw
701 that it would last longer than usual, and the cacique judged that
705 more preparations were required, in his position as supreme chief or captain general he would commission subalterns called Queremba, experts, to inspect all the armament available, and if the report of these chiefs was not satisfactory, a general order was given to make up and repair all the deficiencies as quickly as possible.

411 The bows and arrows were made in the public plaza or out-
824 side each house; the wood which was to serve for bows was
[283] different from that for arrows. War bows measured /275/ a meter and a half more or less, and to shoot one they used a twisted cord made of pygmy-deer hide, which was both light and strong. The wood that they use even today for hunting bows is called Igũirapitiragua.

The arrows are made of different kinds of wood, but the most common are Ovei, guayancansillo /a kind of guaicum/, Yaguasíi, tola, and Igũirane, smelly wood. This last is very poisonous, and the tribe that uses it must be a very bad enemy of his opponent, because whoever is wounded with these arrows will recover only with difficulty, and the wound is a continual suppuration of illness, which slowly consumes him, almost without any hope of his being able to be helped and to enjoy life once more with his companions.

Every arrow ends in a point, and on both sides it has its edges the opposite way so that when it enters the flesh it is difficult to remove, and one who does not know how to remove it can produce a greater wound than the one the arrow made when it entered.
[283] The arrow is inserted into a little piece of hollow cane, one
[239] meter long, where it is securely attached with string made of toborochi bark, and the string is covered with a little bit of wax (1).

1. At the end of the cane, with the same string and wax, many attach a feather of a falcon or of a carcancho, not for decoration, but so that the shot may be more accurate. The feathers of these birds are more resistant than others.

/275 cont./

411 [492] Warriors on horseback, in addition to having bows and arrows, use the lance; it is a piece of a knife or of iron tied to the tip of a stick; note that each warrior, according to what they say, cannot carry more than a dozen arrows, because they are heavy. 534 726 In order to inspire terror and fright in the attack they make on the enemy town, they use the Igũiramimbi, a wooden musical instrument, the Senene, and the Huacananti, or cow's horn (2).

> 2. The first is round, and it is very hard to pierce it, and the second is long. Both are of good wood, and they engrave figures and signs on them. They hang them from the neck by means of a cord. The wood is like ebony.

722 While some of them are preparing the bows and arrows, the braver men do not remain idle, nor do the women; the latter prepare the necessary provisions and even the chicha to celebrate the triumph, if they win it, and the former encourage the more cowardly ones, showing their ability as queremba in the streets and the plaza, animating them all, making them understand that triumph depends on them and that it is necessary to triumph at all costs if they do not wish to be subjected to the harsh condition of the conquered, thus losing everything, wife, children, home, and property.

726 704 /276/ When all the weapons are ready, those of the cavalry saddle their horses, putting the arrows on the right side, so that they can easily get them in case of urgency, because it is characteristic of the cavalry to yell insults at the enemy and to sow confusion on the battlefield with shouts and the noise of the igũiramimbi, huacananti, and porongos. Then, all of them, [292] foot soldiers, horsemen, and queremba, don their garb, some the [714] jacket /coleto/, others armor of garabatá, and they put on the [411] back of the left hand a strap of pygmy-deer hide, so that they [302] will not hurt themselves when they shoot the bow, and, finally, they all color their faces and arms with ground charcoal dampened in water. Let the reader consider if this army of demons would not frighten even the dead!

4: Nino--382 M-3 (1893-1911) 1912 SF10 Chiriguano SF10

Explanation of the Preceding Illustration /see p. 368/

412
411
534
283
352

1. Wooden spade for work.
2. Spade handle.
3. Bull's horn for blowing.
4. Implement for stirring food.
5, 6. Chiriguano spindles.
7. Chair or seat with two spaces for children.
8. A bow for adults.
9. Arrow with iron point.
10, 11, 12. Arrows with wooden point.
13. Bow for young people.
14. Arrow with two points for hunting and fishing.
15. "Songo," or arrow with rounded point for hunting small birds.
16. Bow for boys.
17, 18. Arrows for boys.

000

Chapter Thirteen

Illnesses, Remedies, Death, and Mourning

Introduction

One moment of reflection suffices for a man to understand that there is no true happiness on earth; he who can glory in being happy in this world finds many sorrows: unsatisfied desires, un-executed orders, unfinished projects. The careless execution of injunctions constitutes thorns for the heart of the man who could call himself blessed. He would like everything to go along as he desires, and when this does not happen he suffers, and if he does not express his suffering he suffers much more (1).

> 1. It is a great relief for a man to be able to communicate his sufferings to a sincere friend, but it is difficult to find such, because he who has a friend has a treasure, and the treasure is a rare thing.

S:Nordenskiöld E-5/f (1908-1909, 1913) 1920
SF10 Chiriguano SF10 ✓
Chané SF8

IV.

Hunting Equipment.

C Ce 411 ● [224]

The Chiriguano and the Chané are not keen huntsmen. They are rarely seen out hunting. Their hunting-weapons are the bow and arrow, the pellet-bow, clubs, slings, and snares, all of their own manufacture. The Chiriguano have bird-nets too, and formerly they had the bola as well. The Chiriguano and the Chané have no weapons exclusively used in warfare. Formerly they had lances[1]).

C [223]

Ce 411

The bow and arrow are going quite out of use among these Indians except for fishing and as a weapon for boys. The degenerate type of bow now seen among the Chané and Chiriguano is certainly not original. According to LIZARRAGA[2]) the Chiriguano used to have bows of a man's height. It is of great interest to learn from LIZÁRRAGA that the Chiriguano used to protect their left wrist with a small piece of wood to prevent the skin being grazed by the bow-string. Something similar occurs among the Ashluslay (see Part I. P. 42).

C [714]

Ce 411 [137] [824] [171]*

Their arrows are very like those used by the Choroti and Ashluslay. The arrow shafts are of the same kind of reed[3]). At the Rio Parapiti this plant, which grows abundantly beside the Rio Pilcomayo is cultivated by the Indians. On the Rio Parapiti there is a place called Ouivarenda, which means »where there is chuchio.» This plant, the *Gynerium* sp. whose seed-stalks so many Indian tribes use

[1]) CHOMÉ P. 331.

[2]) P. 328. 4/1 »Andan desnudos y quando mucho qual ó qual tiene una camisetilla hasta el ombligo; . . . son grandes flecheros; sus armas son arco y flecha; el arco tan grande como el mismo que lo tira, y porque la cuerda no lastime la mano izquierda, en la muñeca encajan un trocillo de madera y allí da la cuerda».

[3]) *Arundo donax.*

4/1 [Errata: this should read "See Serrano y Sanz P. 328."
(f errata sheet, Cat. 116, P. 245 -- Analyst.]

5:Nordenskiöld E-5)(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

for arrow shafts has been completely destroyed by cattle along the Rio Parapiti. Formerly the Chané made the shafts for their arrows of »chuchio».

The arrow points are made of hard wood and sometimes of iron. Arrows with several tips are used for fishing and sometimes also for shooting birds. Arrow-tips made of cactus spikes are used by some Chiriguano for fishing. Some characteristic types of arrows are depicted here (fig. 6). Some arrows are feathered to guide the flight. The feathers are fixed in the way that MEYER calls »Peruvian cemented feathering». The feathers are quite small as on Chaco arrows generally. Arrows with thickened heads (bird arrows) are very common. Some of them have the shape we see depicted here (fig. 6 E). This type does not occur among any of the other tribes I got to know during my travels, but they are common among several peoples living in the east, e. g. the Cainguá, Guató, and Bororó, and in the northern part of S. America, among the Trio, Guahibo and others. They have most likely been introduced here by the Chiriguano. It is not probable that they have come from the Arawaks for, as a rule, they do not use blunt bird-arrows. In Part I I have published a map (No. 3) showing the distribution of the bird-arrow in S. America. Later on I will deal with arrows particularly used for fishing. The Chiriguano and Chané sometimes use a special kind of bast to bind round the arrow where the point is inserted in the shaft. The same kind of bast is not met with among the Choroti and Ashluslay or among the other Chaco tribes I have got to know. It occurs, however, among the Cainguá.

In part I I have already published a map showing the distribution of the sling in S. America. I have nothing to add to this which cannot be seen in the subjoined drawings (fig. 7).

The pellet-bow is rather common among the Chiriguano and also among the Chané. It is chiefly used by boys and youths. I wish here to make a few additions to what I have said about the pellet-bow in Part I.

5:Nordenskiöld E-5 (1908-1909. 1913) 1920
SF10 Chiriguano SF10
Chane SF8

C
Ce
284
411

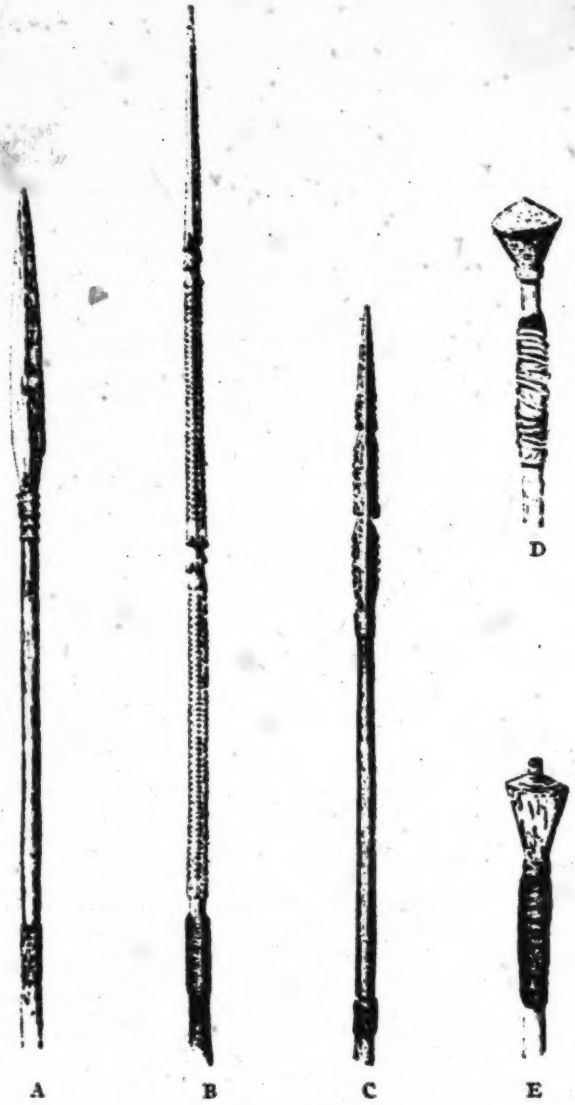


Fig. 6. Types of arrows from the Chiriguano and Chané. Shafts of reed, points of wood. 1/4.

A = Chané, Rio Itiyuro. R. M. H. 61. B = Chiriguano. R. M. E. 655.
C = Chané. Rio Itiyuro. R. M. H. 36. D = Chiriguano. R. M. E. 620.
E = Chiriguano. R. M. E. 622.

5:Nordenskiöld E-5/(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

C
Ce
411
114
177
171

In a weighty article E. VON ROSEN (3) has criticised my opinion that the pellet-bow was possibly brought from India to S. America by Portuguese sailors in post-Columbian times. He is quite correct in the statement that the thick part in the middle of the bow is not for strengthening but is merely for better grip. This holds concerning both the Asiatic pellet-bows and some of the American. This contrivance is practical but not indispensable. It is certainly not little toy-bows alone that have not got it. It is quite wanting on the pellet-bows of the Choroti, Ashluslay, Tapiete, Mataco and Yuracáre. Presuming that the pellet-bow in S. America is of Asiatic origin, it is evident that the Indians who first learnt the use of the pellet-bow

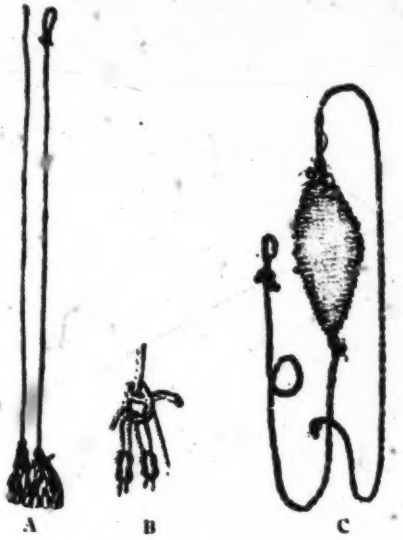


Fig. 7. Slings.

A — Chané, Rio Parapiti. 1/12. R. M. P. 293.
B — Detail of A. 1/3.
C — Chiriguano. 1/5. R. M. E. 168.

Fig. 8. Detail of pellet-bow. Rest for the pellet. Chiriguano. R. M. E. 591 1/2.

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

from the Portuguese have kept its Asiatic shape, while the tribes that received it later have made pellet-bows more like their usual bows.

Von Rosen puts forward the supposition that the S. American pellet-bow may be an imitation of the European crossbow. This is supported by the fact that the pellet-rests on some S. American pellet-bows (fig. 8) and the pellet-rests on some European crossbows are very similar. This similarity is extremely noteworthy. Still, I deem it unlikely that Indians should have hit on the use of pellet-bows because they had seen Portuguese crossbows — especially as I am not aware that the Portuguese in S. America used bullets for their crossbows. In any case the pellet-bow in S. America would be a post-Columbian culture-element.

It is quite true that some Indians, e. g. the Choroti and Ashluslay have their own words for pellet-bow. But it is a common thing for some Indian tribes to have coined words to denote objects introduced by Europeans. On the other hand, it never happens that the Indians that still speak their own language lack native words for objects which are plainly pre-Columbian with them. It is therefore of primary importance for the settlement of the question as to whether the pellet-bow was introduced in post-Columbian times to note the fact that several tribes lack native words for the pellet-bow, calling it »bodoque».[1])

The Chané call it »boroque». I am not acquainted with any Chiriguano name for it. A circumstance that speaks in favour of the pellet-bow being a post-Columbian culture-element is the fact that these bows are unknown in Peru, in Central America, and in Mexico, that is to say, in the cultural zones proper. There are not many of the elaborate culture-elements in S. America that have been unknown to

[1]) From the Portuguese.

5:Nordenskiöld E-5½(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

C
Ce
●411
177
*171

the most civilized tribes and only known to the tribes east of the Andes. This applies especially to those cultural elements that are of little or no importance in the struggle for existence. The pellet-bow is the only weapon of any importance which, as far as is known, was unknown in all the seats of higher civilization in America. If the pellet-bow is an original American invention, it must have been invented by a comparatively uncivilized tribe.

C
Ce
411
*171

The pellet-bow is nowhere in S. America of any great importance as a hunting weapon. The heavy hand of necessity has never spurred the Indians into making an invention of this kind.

C
Ce
411
*171
114

FRIEDERICI has pointed out to me in a letter that in MARTYR »De orbe novo» there is a statement about bows from the coast of Venezuela used by boys for shooting with pellets of clay or wax. This is plainly the same statement as GOMARA's that I quoted in Part I. MARTYR's statement is in the Eighth Decade, where he complains, that his memory was beginning to fail him. I believe there must be some misapprehension on MARTYR's part, and that the pellets in question were arrows with thickened heads of wax or wood. MARTYR cannot refer to pellets thrown by hand, as he plainly speaks of bows. It is not likely that wax pellets were used for clay pellet-bows, but, on the other hand, it is not at all unusual that arrows used in play should have thickened wax heads. Arrows of this kind have been brought from the Ijca in Colombia by BOLINDER. The pellet-bow is mentioned neither by missionaries nor by any modern authors as occurring in Venezuela or any other part of northern S. America. It is extremely unlikely that this desirable toy weapon should have existed there at the beginning of the 15th century and then entirely vanished. Such an isolated occurrence would be most peculiar and unusual.

C
Ce
411
*[171]

The clubs (fig.9) that I have seen among the Chiriguano and Chané have not always clearly defined heads like those of the Chorti and Achluslay.

S:tNordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

of the Choroti and Ashluslay. As far as I know they are only used for hunting peccary. These animals are brought to bay by dogs and killed with clubs. I do not venture to say where this most primitive kind of club originated.

Ee 441 [224]

Fig. 9.

Fig. 11.

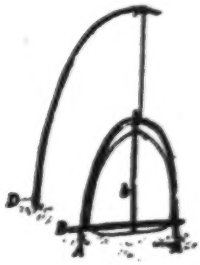


Fig. 12.

Fig. 10.

C Ee 441 223 224

Fig. 9. Club of hard wood. Chiriguano. R. M. E. 580. 1/9.
» 10. Parrot-snare. Chané, Rio Parapiti. R. M. P. 1/11.
» 11. Parrot-snare made of a piece of twine and a feather. The specimen depicted is from the Tapiete. R. M. L. 267. 1/2.
» 12. Snare. Chané, Rio Itiyuro.

C Ee [287]

5:Nordenskiöld E-5 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

V.

Fishing tackle.

Three methods of fishing are known to the Chiriguano and Chané with, moreover, a northerly distribution. These methods are the use of the fish-spear or fishgig, the use of many pointed arrows, and fishing with poison.

I have not seen the fishspear among the Chiriguano. ERIC VON ROSEN[1]), however, depicts one from this tribe which is preserved in the Riksmuseum in Stockholm. Something like it from these Indians is mentioned by ACOSTA[2]).

The Guarayú[3]) spear eels with two single-pointed spears of »chonta». According to EDER[4]) the Mojo used fish-spears with three points. They did their spearing by torchlight and fixed the torches in the prow of their canoes. According to FREIREISS[5]) the Coroados had double-pointed fish-spears. KOCH-GRÜNBERG[6]) mentions triple-pointed fish-gigs from the Huhúteni and other Indians in northwestern Brazil. The Indians in the northwest of Brazil also fish by torchlight. The Indians at Lago Titicaca[7]) use triple-point-

[1]) (1) Pl. XIV.

[2]) T. I, P. 236 »Otro género de pesca vi, á que me llevó el Virey Don Francisco de Toledo; verdad es, que no era en mar, sino en un rio, que llaman el Rio Grande, en la Provincia de los Charcas, donde unos Chiriguanas se zabullian debajo del agua, y nadando con admirable presteza seguian los peces, y con unas fiscas, ó harpones que llevaban en la mano derecha, nadando solo con la izquierda herian el pescado, y así atrevesado lo sacaban arriba, que cierto parecian ellos ser mas peces, que hombres de la tierra.»

[3]) NORDENSKIÖLD (9) P. 177.

[4]) P. 301.

[5]) P. 271.

[6]) (2) T. 2, P. 34, Fig. 9. See also WHIFFEN P. 113.

[7]) NEVEU-LEMAIRE P. 75.

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8
South American Indians S3

ed poles *that are used both as fish spears and to punt their rafts along.*

It is not unlikely at all that it is the multi-pointed pole which has suggested the fish spear. These poles are multi-pointed in order that they may be used in swamps, to punt their canoes along. It was natural that the Indians should try with these poles to have a thrust at any fish they might see. Then, if they migrated to a district where many-pointed poles were no longer needed, these poles lived on as fishspears.

As I have already mentioned the Chiriguano shoot fish with a bow and arrow. For this purpose they sometimes, though not always, use many-pointed arrows. I have seen two different types which are depicted here (fig. 15). One has two wooden points, the other which was used at Rio Parapiti for shooting small fish, has many points of cactus spikes. Two or three-pointed arrows used for shooting fish are spread in South America chiefly in the water region of the Amazon, as indicated on map 5 and table 4.

I have not visited any Chané who live where they are able to use this method of fishing. Among the arrows in my collection there are no multipointed ones that came from them.

As seen from map 5 and table 4, the many-pointed fish-arrow seems to be a cultural element that came to the Chiriguano from the north part of S. America, most likely from Mojos. I have seen the harpoon arrow neither among the Chiriguano nor the Chané.

Table 4.

The following tribes use multi-pointed fishing-arrows. Map 5.

4.	Chiriguano, Fig. 15.	Two or many points.
31.	Trio, GOEJE (1) Pl. V. Fig. 9.	Three-pointed.
33.	Campa, THERESE V. BAYERN (2) Vol. 2, Pl. 1,7	Four-pointed.

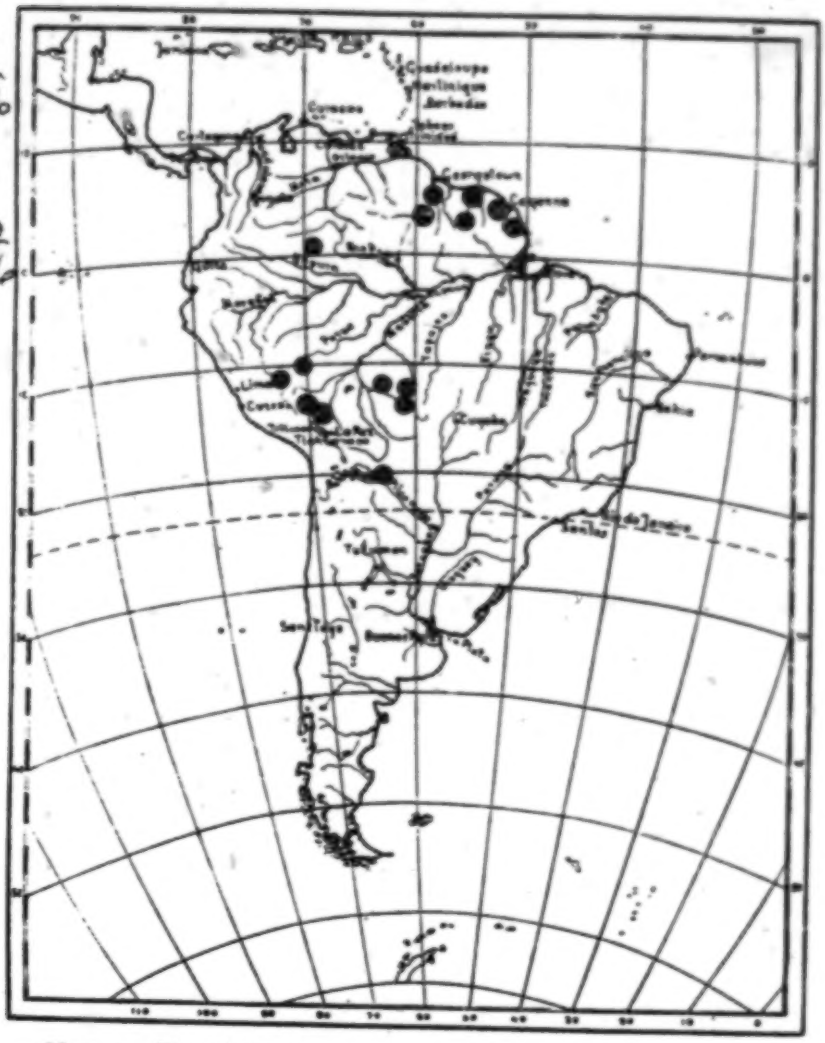
5:Nordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8
South American Indians 53

	41.	Pauserna, Two-pointed.
	43.	Huanyam, Three-pointed.
	47 a.	Patamona, THULIN G. M. Three-pointed.
	48.	Indians Northwestern Brazil, KOCH-GRÜNBERG (2) T. 2. P. 230. Two-pointed.
	Not on the map	Schakaja—Rio Orinoco. RATZEL Vol. 1. Pl. 24. Three-pointed.
	55.	Indians, coast of Guiana. STEDMAN T. 2, P. 109; BARRERE P. 169; QUANDT. Fig. 6. Three to five pointed.
	63.	Yamiaca, Four-pointed. For bird-shooting. Probably also used for fishing.
	64.	Huari, Two or three-pointed. Nambicuara, ROQUETTE-PINTO (2) P. 184. Two, three and four-pointed.
	70.	Piro, Upper Rio Purus. KOCH-GRÜNBERG, Communicated by letter.
	V3.	Caripou, MOCQUET Fig. CC. Three-pointed.
	6X.	Tambopata-Guarayo. Three-pointed.
	2M.	Wapisiana. FARABEE Fig. 13. Three-pointed.

I have not seen these Indians fish with poison. At the Upper Rio Pilcomayo, however, I heard in 1913 that the Chiriguano know how to poison the water with a certain kind of bark as a means of catching fish. A great number of plants are used by S. American Indians for this purpose, particularly in the basin of the Amazon.[1] On the map and table, I have endeavoured in some measure to elucidate the distribution of this fishing-method. Curiously enough KARL V. D. STEINEN did not see this method of fishing among the Indians tribes at the upper Rio Xingú.[2] I have neither seen it myself nor heard of it among the Indians in El Gran Chaco. Nor does MAX SCHMIDT mention fishing with poison from the Guató.

[1]) See further KOCH-GRÜNBERG (2) T. 2.
[2]) (3) P. 235.

S:Nordenskiöld E-S,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8
South American Indians 53
41
C
Ce
102
226
411
171
S
102
226



Map. 5. The distribution of the multi-pointed fishing arrow.

/183 cont./

The Chané and the Chiriguano are not great hunters. Perhaps in former times there was more hunting. Their hunting weapons consist of bow and arrow. For hunting wild pigs they use clubs; for ostrich hunts the boleadora /bola/, "churima," was formerly used. Snares and bird nets are also found. In former times the hunters wore /184/ a costume of leather cut in imitation of a European cut, obviously copied from the Spaniards (1). This

1. Viedma already mentions this costume, p. 181.

was not permitted to hang in the house. Formerly, also among the Chané on the Rio Parapiti, no meat could be cooked in the house; rather, this had to be done a short distance away. Boys are, of course, eager hunters of small birds. Like the men, they sometimes use clay-projectile bows.

There are hunting dogs specially trained for hunting wild pigs. In a Chané village on the Rio Itiyuro I saw how all the dogs had a red cross painted on their heads, so that they would not be bitten by a mad dog running about in the vicinity. It was truly amusing to see how these heathen Chané protected their dogs against rabies with the sign of the cross.

Batirayu told me that Chané men, when they go hunting, are not permitted to sleep with their wives the night before.

Fishing is carried on differently in the various rivers.

In the Rio Itiyuro women and children almost exclusively do the fishing. There are only small fish there too. I saw three methods of fishing there. Angling, fishing with calabashes, and fishing by damming up pools. The fishhooks consist of bent needles obtained from the whites. Floats and sinkers are not used.

Fishing with calabashes is done in the following way. Several bunches of leaves, which give shade, are stuck in the bottom of the river, and in front of each of these is placed a calabash (Fig. 90) with sour, ground maize (residue from beer brewing). The fish gather in the calabashes, which are taken out from time to time by the women. The latter creep toward the calabash, quickly place a hand over the opening, lift /185/ it up, and then empty the contents into pits along the river bank.

/186 cont./ Ee 226

Another method of fishing often used in the aforementioned river is to dam up longish pools in the sand, in which fish gather. After the water is emptied out of the pools, the fish are caught. Sometimes the pond is made to terminate in a channel closed off with a scoop net /Kescher/, from which the fish cannot escape. Ee

All the fishing that I saw on the Rio Itiyuro was done during the dry season, on hot, sunny days. [132]

On the upper Rio Pilcomayo the Chiriguano fish with fishhooks obtained from the whites, with nets similar to the dip nets of the Choroti, though smaller, and by shooting the fish with bow and arrow. The arrows used for fishing have two or more points. C 226 [199] [411]

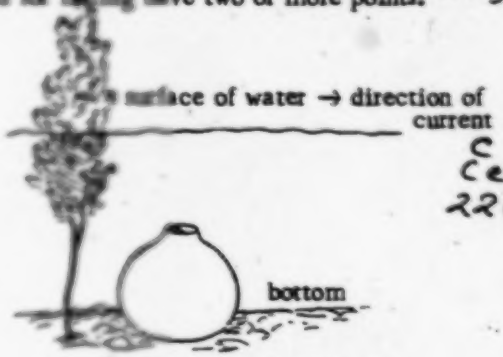


Fig. 90. Fishing with calabash. Rio Itiyuro.

On the Rio Parapiti I saw Chané and Chiriguano fishing with a net of the type illustrated here (Fig. 91). In shooting fish, the Chiriguano there use arrows with many fine points. C [411]

In these last-named rivers the men always fish in deeper water with nets and with bow and arrow, whereas the women are content to catch small fish where the water is dammed when the river is half dry. Ee

Not infrequently the Indians undertake long journeys in order to fish. Thus, the Chané sometimes during the /186/ dry season visit the swamps "Madrejones" in which the Rio Parapiti disappears. 226 484 [33]

7: Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

been imitated from the Europeans. The Chiriguano also sleep in hammocks made of cotton yarn, and on reed mats and skins spread on the ground. Stools for sitting on I have not observed among the Chiriguano. They do, however, possess such articles of furniture,[1] which, however, must be of considerable rarity. Along the walls of the hut will be seen an orderly array of cooking and roasting pots, water pitchers, and pots for maize beer, arranged in rows, often of exceedingly beautiful shape and with painted decoration (figs. 217—225). From wooden hooks in the roof are hanging bunches of maize cobs, pumpkins or other foodstuffs; arrows, bows, and other gear. From the roof there are also suspended clay bowls (figs. 224 and 225), used as repositories for smaller articles of value. Clothing, ornaments, and such like, are also stored in large clay jars placed on the ground. As bowls there are also used the scaly skin of armadillos, and calabashes (fig. 226).

Fig. 194. Man and young woman. Chiriguano. San Luis. Bolivia. Photo. E. v. R.

Outside every hut there is, as I mentioned, a fireplace which is generally used for cooking the food, unless the weather makes this impossible. The huts, as well as the open spaces between them, are kept particularly neat and clean. They are swept every day, and the sweepings are burnt. The huts are practically always free from vermin.

The Chiriguano men nowadays generally wear shirt and trousers of European cut (fig. 194). The poncho shirt is, however, still to be met with among this tribe[2], but only very rarely, and I have never personally

[1] Nordenskiöld (18), p. 263 and fig. 85 (12), pp. 15 and 16, and fig. 3.
[2] Nordenskiöld (12), p. 59.

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

[F205]

CHAPTER VIII.

The Chiriguanos (2).

Industries. Cultivated plants. Hunting. Fishing. Vessels for food and drink. Instruments and utensils. Music and dancing. Social order. Customs governing marriages, childbearing, illnesses, death and burial. Character and temperament. Belief in metempsychosis.

The Chiriguano are mainly an agricultural people, but they also do a certain amount of hunting and fishing. Maize is the most important of their cultivated plants, and it is very extensively grown by them. Many other Indian domestic plants are also cultivated, viz. pumpkins, sweet potatoes, beans, mani, cactus with edible fruit (Opuntia), tobacco, cotton, uruku (Bixa orellana), and a reed plant (Arundo donax) for making arrow-shafts. Of imported cultivated plants grown by the Chiriguano, I have seen melons, water melons, sugar cane and oranges. According to Nordenskiöld, they also grow figs and millet,[1] these latter of course also having been introduced by the whites. Nowadays, European spades and hoes are used for loosening the soil. Among wild-growing food plants the algarrobo tree (Prosopis alba) is, to the Chiriguanos, the most important one. The Indians also prepare from the fruit of this tree an intoxicating drink to which they are much addicted.

The Chiriguano larder does not to any great extent depend on hunting the game, but formerly hunting must certainly have been an important source of subsistence. Snaring is, nowadays, the 'only' method of hunting employed by the Chiriguano. The long-bow, the pellet-bow, slings, bird-nets and clubs are still occasionally used in hunting.

In olden times the Indians were good shots with the bow and arrow, and, according to Lizarraga, they then used bows the height of a man.

[1] Nordenskiöld (II), pp. 23 and 24.

T:Rosen E-S (1901-1902) 1924 SF10 Chiriguano SF10

411
[714]
[114]
[524]
[126]
[171]

Fig. 211. Rikm. ej. 3. 830. For section, see fig. 213. Longbow. Chiriguano. Bolivia. About ½.

Fig. 212. Rikm. ej. 3. 831. For section, see fig. 214. Chiriguano. Bolivia. About ½.

On the left wrist they wore a small piece of wood as a protection against the blow of the bowstring.[1]

Curiously enough, the present-day Chiriguano type of bow does not seem to have been exhaustively described by anyone; not even in Schmidt's account of South American bow types,[2] otherwise so exact, is there any mention of the Chiriguano bow. The reason for this may very likely be found in the circumstance that these weapons are said to be of rare occurrence nowadays, and that such few specimens as are still being made, are mostly used as toys and on that account typologically degenerated. Twenty years ago, when I travelled through a part of the Chiriguano country, the bow was, however, not so rarely seen as a hunting weapon as now, and I collected the seven specimens now reposing in the ethnographical section of the Riksmuseum at Stockholm. Beside these, there are two Chiriguano bows brought home by Baron Nordenskiöld, one of which is a toy bow. Two other toy bows that have been brought to Sweden by Nordenskiöld belong to the Gothenburg Museum. This forms the material from which I have compiled the following description of the Chiriguano type of bow.

By their string-fastening arrangement the Chiriguano bows differ from the Chaco-Andean bow types, which latter as a rule have no neck-shaped bow-end projections for the string. On the other hand, all Chiriguano bows that I have studied, even the toy bows, have neck-shaped ends for fastening the string, a circumstance indicating that the Chiriguano bow is no acquisition from Chaco-

[1] de Lamarque (1), p. 308. Prince Rd. Nordenskiöld.

[2] Schmidt (1), pp. 1005—1030.

411

Andean civilization, but is of a type that the Chiriguano themselves brought with them.

The bow staves, of which figs. 201 and 202 represent typical specimens, consist of an exceedingly resilient — though gnarled — kind of wood. As seen from the table here given, the lengths lie between 115 and 145 cm. The longest of the bows examined by me are therefore about 2 dm shorter than a Chiriguano Indian of average height (see table on p. 191), which goes to show that this type of weapon has grown smaller since the days of Lizarraga.

Chiriguano bows.

Museum catalogue No.	Bow Material	Length cm.	Bow staves, section	Bow string arrangement	String material
03. 3. 850	Hard, resilient, gnarled wood	145	Type as in fig. 203	Bows not strung when received	Twisted cord (vegetable)
03. 3. 851	"	145	"	"	"
03. 3. 852	"	138	"	"	"
03. 3. 853	"	135	"	"	"
R. 880	"	135	"	"	"
03. 3. 854	"	130	"	"	"
03. 3. 855	"	125	"	"	"
03. 3. 851	"	119	Type as in fig. 204	"	"

The string side of the Chiriguano bow is plane or very slightly convex, and the front side convex, which gives the stave section the shape shown in fig. 203. Only one of the bows examined, fig. 201, has a differently shaped section, which is seen in fig. 204. It is worthy of remark that two bows (Nos. 03. 3. 850 and 03. 3. 854) are of a low reflex type, i. e., the stave, when the bow is unstrung, assumes a slight curve in the direction opposite the one it has when strung. From the way the string is put on, it is evident that the stringing has not been altered, so that the reflex type is not merely apparent. It is also possible that some of the other Chiriguano bows I have examined have originally been of reflex type, but that the staves, from slight stringing for a long time, have lost their original elasticity. It seems to me, however, most probable that these bows have acquired their reflex character unintentionally. As a rule, the reflex type is

Fig. 203. Section of stave of bow 202, fig. 202.

Fig. 204. Section of stave of bow 201, fig. 201.

T:Rosen R-5 (1961-1962) 1924 SF10 Chiriguano SF10

unsuited to wooden bows, although, on the other hand, it is useful in the case of built-up bows, and bows made of horn.[1]

For the purpose of fastening the string, the staves have been given neck-shaped ends, one of which often is longer than the other (fig. 205, a and b). The string, which consists of twisted rawhide, is fastened to the shorter neck end with a knot (fig. 205, a), or a loop, then wound round the other neck end, in the way seen in fig. 205, b. When not in use, the string is slackened on the bow. When the bow is to be used, the stave is stood on the ground, for purchase, when it can be bent as much as is desired, and then the slip-knot (fig. 205, b) is pulled tight. When the bow is strung taut, the slip-knot is locked, so that, when unstringing the bow, one compresses it against the ground in order to slacken the string; the slip-knot is then easily loosened, and the string lengthened as required. When the bow is not being used for shooting, this way of treating it rests the stave, and tends to preserve its elasticity. In shooting, the bow is held with the string-wound part downwards (see figs. 201 and 202).

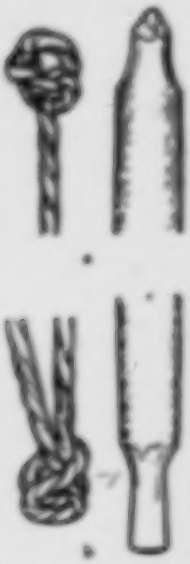


Fig. 205. String ends and string-wound loops of longbow staves. ⅓ nat. size.

The arrows are long, sometimes as long — or even longer — than the bows. As to their size, and other particulars, this may be seen from figs. 206—214, and the table on p. 211.

In the lancet-shaped heads of arrows of the types seen in figs. 206 and 207, the tang is pushed into a wooden arrow-head socket, the forepart of which is cleft. The rear end of the socket is fitted into the hollow fore end of the reed shaft. The socket is wound with string, so that its cleft part is kept tightly pressed against the tang, which latter often is smeared with beeswax, so as to make it stick firmly in the cleft. In order to give an increased firmness to the string-lashing, this is also heavily waxed, and so is the part of the socket that is fitted in the shaft. Iron arrow-heads of this type have probably been copied from the lanceolate wooden arrow-heads that are still in use among the Chanés.[2]

[1] Longbows and Waisted (1), pp. 48—49.

[2] Tube arrow-head, fig. 8 A, Nordenskiöld (18).

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

411

All arrow-shafts have the forepart strengthened by a waxed lashing of bast or string, of a width from 5 to 11 cm. The rear end of the shaft is generally also reinforced with a waxed lashing, applied immediately above the string notch. This latter lashing is usually about 1 cm wide. In those of the arrows here reproduced that seem to be without notch-end lashing, this has become detached, except in the case of the arrow in fig. 40, which never was provided with a lashing of this kind.

I have mentioned in the foregoing that the Chiriguano cultivate a kind of reed plant (Arundo donax) in order to obtain therefrom a suitable material for making arrow-shafts. In making a reed into an arrow-shaft, the arrow-head is fitted to the thicker end of the reed (the lower part of the growing reed), because in this way, when the arrow is being discharged, the joints glide more easily over the bow stave than if the thinner end of the reed were turned to the front. The reed joints are, moreover, smoothed down with some sharp instrument in order to lessen the friction between arrow and stave. Arrow-shafts of a certain very light kind of wood are used by the Chiriguano of San Luis. Such wooden shafts I only saw on the long bird and fish arrows. I have never observed either arrow poison, or feathering on arrows, among the Chiriguano, but Nordenskiöld has seen feathered Chiriguano arrows.[1]

[824]

223
411

For bird-shooting the Chiriguano use arrows with club-shaped, wooden heads. The striking-face of this blob-head is usually slightly conical, and sometimes given a small, cylindrical projection (fig. 212). This type of arrow-head has been constructed for the purpose of preventing the arrow — if it misses its object — from fixing itself in the stem or branch of a tree, and of making it instead drop to the ground. As birds frequently are sitting high aloft in the trees, the hunter would not have much chance of recovering his arrow, on missing his bird,

Fig. 206. 03. 3. 902. Fig. 207. 03. 3. 903. Arrows with lanceolate iron heads, and reed shafts. Chiriguano. San Luis. Bolivia. 1/6. Riksm.

[1] Nordenskiöld (13), p. 26.

[Text continues on p. 212]

[P. 210]

411
284

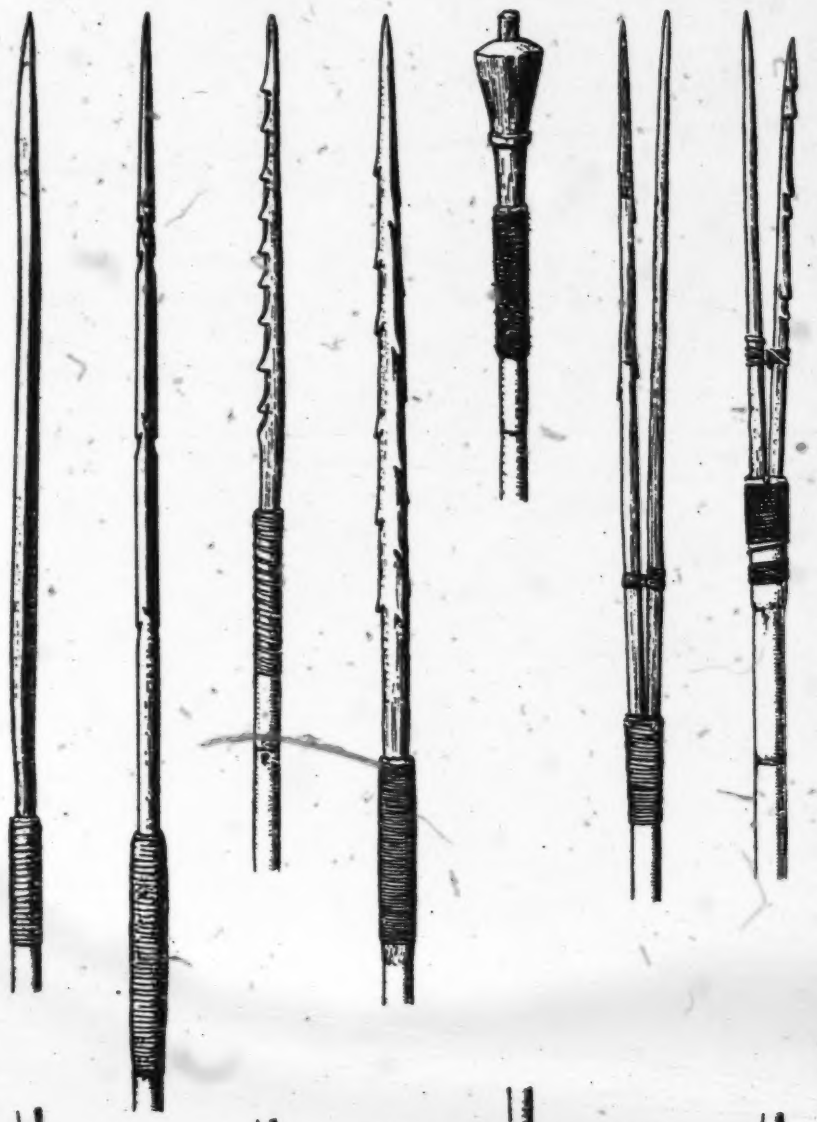


Fig. 208. 03. 3. 857.
Fig. 209. 03. 3. 868.
Fig. 210. 03. 3. 864.
Fig. 211. 03. 3. 862.
Fig. 212. 03. 3. 873.
Fig. 213. 03. 3. 882.
Fig. 214. 03. 3. 893.

Arrows with points of hard, heavy wood, and shafts of reed. Chiriguano. San Luis. Bolivia. 3/4. Riksm.

Arrows for fish-shooting, with two-pronged points of hard, heavy wood, and reed shafts. Chiriguano. San Luis. Bolivia. 3/4. Riksm.

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

The Chiriguano arrows in figs. 206—214. Synoptic table.

Fig.	Head					Socket		Shafting	Shaft			Length of arrow, cm	Mode of using
	Material	Shape	Length beyond socket, cm	Length beyond shaft, cm	Arrow poison	Material	Length beyond shaft, cm		Material	Length cm	Feathers		
206	Iron.	Lanceolate with tang; no barbs.	14.5	—	None	Wood	8	The tang is stuck into a cleft in the socket. Socket fitted into a hole in the shaft.	Reed	132.5	None	155	For hunting large game such as jaguar and ostrich; also as war weapon.
207	»	»	11.5	—	»	»	11.2	»	»	106.4	»	129.1	»
208	Heavy hard wood.	Needle-like, with triangular section; no barbs.	—	35.2	»	—	—	Arrow-head stuck into a hole in the shaft.	»	78	»	113.2	For hunting various middle-sized game.
209	»	Needle-like, with square section.	—	35.6	»	—	—	»	»	82.9	»	118.5	»
210	»	Needle-like, with irregular section. A row of barbs.	—	21.8	»	—	—	»	»	100.3	»	122.1	Also used for shooting fish.
211	»	Needle-like, with triangular section. Barbed along all three edges.	—	32.3	»	—	—	»	»	103.8	»	136.1	»
212	»	Club-like, with projecting stout pin in middle of striking surface.	—	8.5	»	—	—	»	»	136	»	144.5	Bird-shooting.
213	»	Two needle-like heads with triangular section. The shorter head is barbed.	—	31.5 30.8	»	—	—	»	»	132.4	»	163.9	For fishing.
214	»	»	—	20.5 19.1	»	—	—	»	»	103.6	»	124.1	»

7: Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

411
223

if the arrow had not been given such a blob-shaped head. The force with which this lumpy head strikes its object, is sufficient to kill a middling-sized bird, provided the range is not too wide. The projection is intended for penetrating the feathers of the bird, so that the arrow shall not glance off the smooth plumage if the arrow should strike the bird at too acute an angle. These lumpy-headed arrows do not, as a rule, pierce the skin of the animal hit, which may be of advantage in killing small game.

411
177
194

The pellet-bow is also used by the Chiriguano. Whether it forms a constituent part of South American culture, or whether it has been introduced from India or Europe, is a question not conclusively settled. For my part I consider it probable that also in South America this weapon is an independent invention, but that the type (especially as regards its chambering) possibly may have been subjected to influence from the *European* pellet-throwing crossbow.[1] The fact of the pellet-bow being, apparently, of more common occurrence on the Chaco than elsewhere, may be explained from proximity to the Andes, and influence from Andean civilization. Within the area of ancient Peruvian culture, the stone sling was the most important distance weapon, and we may be quite sure that the nations then inhabiting the wooded spurs of the eastern Andes got to know the stone slings of the mountain folk. In forest regions, however, slings are unpractical weapons, as, in the whirling preliminary to the throw, they are apt to get caught in tree branches. The idea of using pebbles as projectiles instead of arrows, has however been adopted by the forest-dwelling tribes, who have tried to convert it into shooting with the bow. A stone that has been shot away does not need to be retrieved, but the loss of an arrow is always a serious matter! To my mind, it is in this manner that the pellet-bow of South America has originated. In districts where there are no stones, as for instance the greater part of the Chaco, clay pellets are used instead of stones.

As an argument in support of the view that the pellet-bow is not originally a South American weapon, it has been pointed out that it is not found in Peru, Central America, or Mexico. Its absence in Peru is easily explained, as this country is in its greater part almost entirely treeless, so that here the stone sling would be a weapon so infinitely superior to the pellet-bow that the use of the latter would be purpose-

[1] For discussion of this matter, vide: Nordenskiöld (11), pp. 50—53. von Rosen (5), pp. 174—180. Nordenskiöld (12), pp. 26—30.

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

Fig. 215. A Chiriguano Indian with a fish spear. San Luis. Bolivia. Photo. E. v. R.

less. For the rest, the pellet-shooting long-bow is, compared with the pellet-shooting crossbow of the Old World, in any case a pretty poor weapon, both for war purposes and for hunting, which may explain its inconsiderable distribution even in well-wooded districts. Where this weapon nowadays occurs, it is only used for killing small birds, for target practice, and as a toy.

Fishing is carried on in the water courses with which the country is sparingly supplied. The Indians use hooks, nets, fish traps and weirs. These fishing methods are, however, almost exclusively used for fishing in rivers or largish bodies of water. In shallow streams and rivulets, the fish are shot with arrows, or speared with a two-pronged fish-gig. Fishing with poison is also said to be made use of.[1]

A fish trap consists of a large, bottle-shaped calabash, wide in its lower part, but with a narrow neck. The trap, which is placed under the lee of a few boughs stuck into the river bottom, must not be set in deeper water than makes it possible for a wading person to reach the neck of the calabash. Ground bait, consisting of crushed, sour, maize, is put into the calabash. The fish will then collect inside the calabash, and the fisherman has only to carefully raise the trap out of the water. In the sandy river banks ponds are dug, and connected by a small channel with the river. When fish have collected in the ponds, the connecting channel is blocked up, the pond emptied of water, and the fish gathered up.[2]

Fig. 216. Detail of the fish spear in fig. 215. The prongs are of hard wood. Chiriguano. San Luis. Bolivia. 1/4. Riksm. 03. 3. 904.

Among the Chiriguano Indians I visited, fish-shooting was a common practice. For this they used their smallest and weakest hunting bows. But it is also possible that those light bows I saw being used for shooting fish with, were exclusively employed for that purpose. If so, then the bow in fig. 202 is a fish bow. The arrows are long, and are usually provided with

[1] Nordenskiöld (12), p. 40.
[2] Nordenskiöld (13), pp. 170 and 171.

411
[226] two barbed prongs made of some hard wood (figs. 213 and 214). The arrow in fig. 210, which has only one prong, is used both in hunting and
[824] for fish-shooting. The Chiriguano also use fish arrows pointed with a number of cactus spines.[1]

The fish spear has in later times become a very scarce implement with the Chiriguano. The only specimen obtained, as far as I know, is the one brought home by me, and now belonging to the Riksmuseum in Stockholm (figs. 215 and 216). Erland Nordenskiöld, who has compiled
[114] a map of the distribution of the fish spear in South America, has been kind enough to inform me that the only mention he has come across in the literature, concerning its occurrence among the Chiriguano, is to be found in the account of the Viceroy Francisco de Toledo's unsuccessful expedition against these Indians.[2]

The fish spear I came upon among the Chiriguano in the neighbourhood of San Luis, has a 260 cm long shaft, made of some light kind of wood, very free from knots,[3] at one end of which two barbed wooden prongs are lashed on by means of a thin leather thong. The full lengths of the prongs are, respectively, 32.1 and 31.5 cm, and they project 20.2 cm from the shaft. One of the points has, however, been of a somewhat greater length, but has got blunted off. Both points have seven barbs on their outer sides. To ensure a perfectly firm fastening of the prongs, the fore end of the shaft has been wrapped with a piece of cloth, and over this the prongs have been lashed on.

323
[462] I have already enumerated the various kinds of Chiriguano household furniture. Among them, clay vessels hold a very important place. The Chiriguano are clever potters. It is only the women, though, who work at this industry.

In fig. 217 we see a potter's workshop, with a number of finished and unfinished pieces of earthenware. At the hut entrance is sitting a woman, who, with a piece of stick, is giving a finish to a large pot, which has been built up of rolls of clay, and is still unburnt.

[126] In figs. 218—225 I have reproduced some typical Chiriguano clay vessels that I collected at Aguayrenda. These vessels are particularly well made. The peculiar rim warts seen on the hanging vessel in fig. 225,

---

[1] Nordenskiöld (12), fig. 15 a.

[2] Acosta (1), Part I, Chap. XV.

[3] Unfortunately, during its transportation home, the handle was, unknown to me, cut into two parts.

8: Schmidt--90 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
I202c
Ce
411

Plate XIII

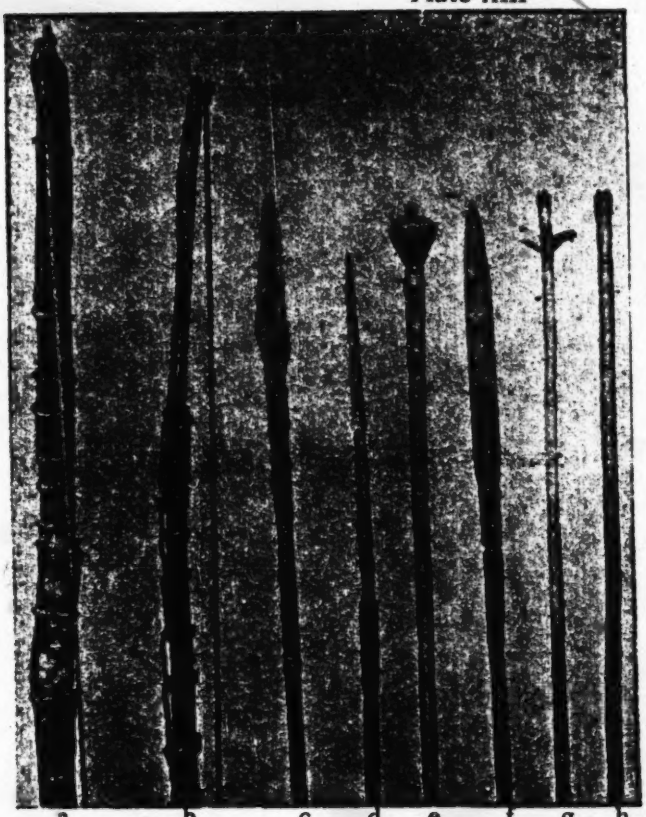


Fig. 27

C
411

Fig. 38

Ce
229

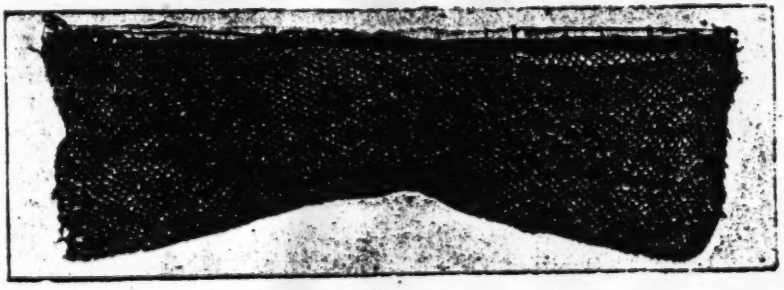


Fig. 39

/The captions appear on p. 91./

8: Schmidt--91 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
Izozo

/Captions for Plates XII and XIII/

C
534

Plate XII

Fig. 33. Wooden flutes, "serere" (Chiriguano): a (I. A. 492), length 20 cm.; b (I. A. 491), length 17 cm.

Fig. 34. a (I. A. 494): Cane flute (Chiriguano), length 41 cm.
b (I. A. 495): double whistle of cane (Chiriguano), length 33.5 and 7 cm.

C
524

Fig. 35. a (I. A. 506): rattle, a toy for children (Chiriguano), length 23.5 cm.
b (I. A. 505): top, a toy for children (Chiriguano), length 16 cm.

Fig. 36. a (I. A. 510): toy for children, "mou-mou" (Chiriguano), diameter of the disk 6 cm.
b (I. A. 509): sling (Chiriguano), length (without cords) 14 cm.

C
Ce
411

Plate XIII

Fig. 37. Bows and arrows: a (I. A. 757), bow (Izozó), length 1.32 m.; b (I. A. 756), bow (Izozó), length 1.41 m.; c (I. A. 519), arrow (Chiriguano), length 1 m.; d (I. A. 521), arrow (Chiriguano), length 0.85 m.; e (I. A. 534), arrow for birds (Chiriguano), length 1.11 m.; f (I. A. 748), arrow (Izozó), length 0.94 m.; g (I. A. 528), arrow (Chiriguano), length 0.94 m.; h (I. A. 750), arrow (Izozó), length 0.835 m.

C
411

Fig. 38. (I. A. 517.) Macana (Chiriguano), length 0.64 m.

Ce
227

Fig. 39. (I. A. 764.) Fishing implement (Izozó), length 73.5 cm.

/38 cont./

Because the ancient Peruvians raised various breeds of dogs, we can assume that the Chiriguano received the dog as a domestic animal from the ancient Peruvians. We can assume the same with regard to the duck, which was also raised by the ancient Peruvians. Therefore I do not include the duck among the domestic animals that these Indians received from the whites, as Nordenskiöld does. We do not know whether the Chiriguano in times past might have raised the llama. From the fact that guanacos exist in the territory located between the Parapití and the Rio Grande, we can deduce that the raising of that other species of Euchenia might have been possible in that country.

The Chiriguano very early received such European domestic animals as the horse, the ass, the cow, sheep, goats, hogs, and chickens, which they captured in great quantities in their continual raids on the Spanish settlers. In 16th century documents there are repeated complaints about the extensive stealing of livestock by these Indians. Today the Chiriguano and Chané do not have many horses, and they have never had the /39/ pronounced character of a nation of horsemen. The true weapons of war were formerly a long bow and arrows which were also long, which cannot be used by a mounted horseman, in addition to which their homes were formerly in the hills in regions which the Spaniards could not enter on horseback. In certain parts of their territory the raising of cattle has some importance (181). More general is the raising of sheep, pigs,

181. See Métraux I, p. 340.

and chickens. Today one sometimes also finds among them guinea hens and turkeys (182).

182. Nord. 1, p. 137.

/39 cont./

Tamed wild animals are rarely found inside their houses, except that they do have some parrots (182) /see footnote 182 above/.

Hunting

We have explained before that, because of the lack of animals that can be eaten in the territory of the Chiriguano and Chané, hunting is secondary among their means of subsistence, and in accordance with this we know through old documents that the feathers for their arrows were introduced to the Chiriguano by other Indian tribes who were their tributaries (183). The raising of domestic livestock gives them a

183. Moreno II, 121.

greater opportunity to obtain animal foodstuffs. In accordance with the fact that the Chiriguano, at least today, are not first-class hunters, the most common method of hunting among them is the use of traps (184). Nordenskiöld describes three

184. V. Rosen, op. cit., p. 205.

different kinds of traps, all three of which are used for catching birds (185). The first kind consists of a simple noose and is used

185. Nord. 2, pp. 32, 33, and 85, Fig. 10, 12, and 13.

with the help of calls. The second kind, which is common among various other tribes of Indians, is used, for example, also by the Kaingua /Caingua/. The third kind consists of a net made in two parts and fixed to the ground by means of stakes. In one of the Chané legends recorded by Nordenskiöld, a trap for catching doves is mentioned (186).

186. Nord. 1, p. 279.

C
Ce
411
126

/39 cont./

Bows and arrows are only incidentally used for hunting, and it is therefore difficult to collect them today among these Indians. From the Izozó I was able to acquire various bows and arrows, and from the Chiriguano a small bow for children and various arrows. Among these there are also two specimens for killing birds, provided with a club /maza/ at the tip. Because in particular cases we were often unable to decide if a type of arrow were used exclusively for hunting or for fishing or both, I shall list all the types of arrows together in the following list.

Bows (uirápa) in the Collection

I. A. 518 (Chiríguano) Length 0.80 m. Cord is strips of animal hide.
I. A. 754. (Izozó.) Length 1.39 m. " " "
I. A. 755. " " 1.28 m. " " "
I. A. 756. " " 1.41 m. " " " (Fig. 37b).
I. A. 757. " " 1.32 m. (Fig. 37a).
I. A. 758. " " 1.31 m. " " "
I. A. 759. " " 1.04 m. " " "
I. A. 760. " " 1.11 m. Cord is a piece of cable.

C
411
126

/40/ Arrows (uij) in the Collection

I. A. 519. (Chiriguano.) Length 1 m. Iron point; its length 15.5 cm. Cane shaft. No feathering. (Fig. 37c.)
I. A. 520. (Chiriguano.) Length 0.99 m. Iron point; its length 20 cm. Cane shaft. Remnants of feathering.
I. A. 521. (Chiriguano.) Length 0.85 m. Wooden point; its length 28.5 cm. With feathering. (Fig. 37d.)
I. A. 522-533. (Chiriguano.). Wire points.
I. A. 534. (Chiriguano.) Length 1.11 m. Tip in club form; its length 5.5 cm. Cane shaft. With feathering. (Fig. 37e.)
I. A. 535. (Chiriguano.) Length 0.71 m. Tip in club form; its length 4 cm. Wooden shaft. With feathering.
I. A. 536. Wooden arrowpoint. (Chiriguano.) Length 25.5 cm.

Chané SF8
Izozo

Ce 41 126

/40 cont./

I. A. 747. (Izozó.) Length 0.97 m. Iron point; its length 24.5 cm. Cane shaft. Remnants of feathering.

I. A. 748. " Length 0.94 m. Iron point; its length 23.5 cm. Cane shaft. Without feathering. Fig. 37 f.)

I. A. 749. " Length 1.07 m. Iron point; its length 23.2 cm. Cane shaft. Without feathering.

I. A. 750. " Length 0.835 m. Iron point; its length 17 cm. Cane shaft. Without feathering. (Fig. 37h.)

I. A. 751. " Length 0.93 m. Iron point; its length 22.5 cm. Cane shaft. With feathering.

I. A. 752. " Length 0.92 m. Iron point; its length 27 cm. Cane shaft. With feathering.

I. A. 753. " Length 0.985 m. Iron point; its length 21.5 cm. Cane shaft. Perhaps with feathering.

C Ca 411 174 175

Of the seven Izozó bows, the first four on the list are good specimens made of hard wood and correspond in all details to the Chiriguano bows described by v. Rosen (187), except for

187. v. Rosen, op. cit., pp. 206, 208.

their length, which is a few centimeters less than these. This difference in length is easily explained by the fact these Chiriguano bows were collected by v. Rosen in 1901 and 1902. It would be difficult today to find still among the Chiriguano bows as long as those which v. Rosen acquired 35 years ago. From Lizarraga's statement that the Chiriguano bows were of the same height as the bowman, it is evident that the bows of these Indians were formerly even longer than those described by v. Rosen. If, following Lehmann-Nitsche's somatic measurements mentioned above, we set the average height of Chiriguano men at 1.63 m., there is still a difference of 18 cm. between this figure and that of 1.45 m., which is the length of the longest bow among those collected by v. Rosen. We must consider this shortening of the Chiriguano and Chané bow,

C [141]

Chane SF8
Izozo

C
Ce
411
174
178
Ce
411

/40 cont./

steadily progressing, a consequence of its degeneration resulting from its gradually falling into disuse.

The form of all the bows collected among the Izozó is the same, discounting the insignificant differences with regard to their length. The wood of the bow, which is approximately 3 cm. wide, is flat on the side towards the string and convex on the opposite side. To better fasten the bowstring, each of them is provided at its ends with a quite marked narrowing and always considerably shorter at the upper end than at the lower end. /41/ Three of these Izozó bows show, when not flexed, the reflex form already mentioned by v. Rosen with respect to the Chiriguano bows. The bowstring, made of twisted strips of animal hide, is fastened in the common manner used by South American Indians. By means of a noose with a knot, it goes around the narrowing of the upper end of the bow, while the loop at the lower end is made so that it can either shorten or lengthen the bowstring as necessary. Cf. Fig. 37, a and b /see p. 90/. In all these bows a large part of the string is rolled up as a reserve around the wood of the bow. Bow I. A. 757, whose wood shows cracks on the side toward the string, has wood reinforcements in two places, one of them consisting of a wrapping with thread and the other a piece of the skin of a cow's tail, which has been slipped like a sleeve over the wood of the bow. Cf. Figure 37 /see p. 90/.

Ce
411
283
[237]
[284]
Ce
[237]

The three bows I. A. 758-760, made of light-colored wood, correspond in form to the others, but they are poorly made and appear to be cheap merchandise for trading. Bow I. A. 760 even has a cable wire in place of a string.

Ce
411

The small Chiriguano bow I. A. 518 is a bow made for children for shooting light arrows with a wire point, which have been enumerated in great number in the above list.

C
411
524

The length of the arrows I collected among the Chiriguano and Izozó is somewhat behind with respect to the length of the corresponding bows. The longest among them is a Chiriguano arrow for shooting birds, fitted with a club rather than a point, with a length of 1.11 m. Among the arrows fitted with iron

c
Ce
411
[223]

/41 cont./

points, one Izozó specimen reaches a length of 1.07 m., and a Chiriguano specimen, a length of 1 m. This is the opposite of the observations that v. Rosen made about Chiriguano arrows, that they were as large or even larger than the bows.

Without counting the Chiriguano arrows fitted with wire points, which no doubt are used only by children for shooting at fish or birds and which are often made with wooden shafts, arrow shafts are universally made of cane, taken from the plant Arundo donax, which, as I have already mentioned above, is cultivated by the Chané of the Parapití River. According to Nordenskiöld, the Chané formerly also used the Ubá (Cymnerium sp.), which they call "chochio" (188). The

188. Nord. 2, p. 26.

arrows collected among the Izozó are provided with iron points. Nordenskiöld also shows in drawings Chané arrows fitted with wooden points in the form of a lancet or dentate (189).

189. Nord. 2, Fig. 6. A and C.

Among the Chiriguano arrows in the collection, there are two fitted with iron points, one fitted with a dentate wooden point, one such wooden point without a shaft, and two arrows for bird hunting that are fitted with a club instead of a point. The Chiriguano arrows fitted with iron points correspond throughout to the Izozó ones with respect to form and material. The iron point is joined to the shaft by means of a piece of split wood and a wrapping of cord made from special tree bark and fastened with wax. The lower end of the cane shaft has a groove over which the end of the arrow is also fastened by a wrapping of the same cord secured with wax.

/42/ Some Chiriguano and Izozó arrows have feathering, others do not. While the feathering was lost on some of the arrows that do not have it now, as can be discerned from the remnants of wax which had served for attaching it, other arrows show clearly that they never had feathering. If there is feathering, the feather parts attached by means of wrapping with cord and wax are small, as are those of most of the Chaco tribes.

St Schmidt--101 E-S (1935) 1938 SF10 Chiriguano SF10
Chané SF8

/42 cont./

Cc
411
237
C
411
[284]

and wax are small, as are those of most of the Chaco tribes. In the diagram made by Hermann Meyer for the various types of South American arrows, the feathering of the Chiriguano and Chané arrows corresponds to those that this writer calls "Peruanische Pechfiederung" /Peruvian pitch-feathering/. The Chiriguano arrow provided with a dentate wooden point differs from the other arrows in that its point is attached directly to the shaft without interposing a special piece of wood. Otherwise, the form of its shaft, provided in this case with feathering, corresponds to the form of the arrow shafts fitted with iron points. V. Rosen (190), v. Nordenskiöld (191), and

190. V. Rosen, op. cit., Figs. 206-214.

191. Nord. 2, Fig. 6 B.

Métraux (192) show in drawings different types of Chiriguano

192. Métraux 1, Plates 8 and 9.

arrows fitted with wooden points.

Métraux often found among the Chiriguano in the Caipipendi valley arrows fitted with two dentate wooden points, . which the young men used especially for shooting jacus (193).

193. Métraux 1, p. 347 and Plate IX, N. 1.

Of the two Chiriguano bird-hunting arrows fitted with a club at the upper end instead of a point (sõngo), only one specimen, I. A. 534, can be considered typical. As I have already mentioned, it is the longest arrow in the collection. The other arrow for hunting birds, much shorter and badly made, doubtless was used only by boys. The form of the clubs of these two arrows (cf. Fig. 37e) is the same and also corresponds to the form of the arrows of this kind shown in

C
/42 cont./
411 drawings by v. Rosen and v. Nordenskiöld (194). This club is

C
411
284

194. V. Rosen, op. cit., Fig. 212. Nord. 2, Fig. 6, D and E.

fastened directly on the inside of the upper part of the shaft. The shaft of the larger arrow is made of the same cane as that of the other arrows, and that of the smaller arrow is light wood. The binding on the upper part and also on the lower part of the shaft of the longer arrow consists of cotton thread secured with wax. The two arrows have feathering and have the same groove at the bottom end of the shaft. Several specimens of Chiriguano bird-hunting arrows whose clubs show different forms are shown in drawings by Métraux (195).

C
[239]

195. Métraux I, Plates X-XI.

C
G
411
174
[283]

The special form of the club of the arrows for shooting birds (cf. Fig. 37e) and the special method of binding the shaft with a cord of tree bark and the length which these arrows formerly had lead us to the conclusion that this type of arrow, equally common today among the Chiriguano and Chané, is the ancient form of arrow that the Chiriguano brought from their native soil to the west. I have already mentioned that the Chiriguano and Chané bows and arrows were formerly much longer. But we can also assume that these implements of the hunt and weapons of war, in accordance with their greater importance, were formerly better made than they are today.

C
G
411
524

According to Nordenskiöld, only rarely does the codoque, the bow for shooting balls, appear among the Chiriguano and Chané, and it is only used by youths and boys (196).

196. Nord. 2, p. 26.

/-2/

Macana in the Collection

411 [126] I. A. 517. (Chiriguano.) Length 64 cm. (Fig. 38).

[171] The wooden macana, acquired from the Chiriguano, is provided at its upper end with a broadening distinctly delimited from the handle (cf. Fig. 38) and in that respect corresponds to the macanas that we know from various Chaco tribes, for example, the Toba, but it does not correspond to the Chiriguano macana shown in a drawing by Nordenskiöld (197).

197. Nord. 2, Fig. 9.

The latter is about the same length, but it does not show the clear broadening at the handle, its upper end being only slightly broader. According to Nordenskiöld, the Chiriguano [224] do not use these macanas except for hunting pigs (198).

198. Nord. 1, p. 183.

Sling: (tamomboka) in the Collection

[126]

I. A. 508 Chiriguano. Length of the middle part of net 15 cm.
I. A. 509. " " " " " 14 cm. (Fig. 36b.)

The two slings acquired from the Chiriguano seem to be exactly alike. They consist of a middle part made with the [286] net technique with caraguata-fiber string which terminates at [284] each end with a cord. One of these two cords ends in a simple knot and the other in a small loop. These slings are like the Chané ones shown in drawings by Nordenskiöld, while the manufacture of the middle part of the Chiriguano sling shown by Nordenskiöld is different (199). The Chiriguano in contact

199. Nord. 2, Fig. 7, A.

C 411 177 /48 cont./ The Chiriguano in Contact with the Quichua /Quechua/ also use another type of sling made of wool (200).

200. Métraux 1. p. 342 and Plate VII.

C 224 [411] According to Nordenskiöld, the Chiriguano also formerly used the bola, called "churing," by them, for hunting the ostrich (201).

201. Nord. 1. p. 183.

C [231] We must still mention that the Chiriguano train their dogs for hunting, especially for hunting pigs (202).

202. Nord. 2. p. 31. Métraux 1. p. 346.

Fishing

C 433 226 Because, as I have already mentioned, there is no opportunity for fishing in any part of the Chiriguano territory and also the large rivers which are in their territory, except for the upper Pilcomayo River, do not offer any fish other than very small ones, fishing has only secondary importance in the economy of most of the Chiriguano, although they utilize every chance they have to fish.

C 227 Among the Chiriguano in Macharetí I did not see any fishing equipment outside of the small arrows with wire points, which are occasionally used for fishing. But among the Izoceño I acquired such a piece of equipment, which consists of a net bag that is closed at the top with two sticks of cane attached to the upper edge. (Cf. Figure 28.)

CE 126 227

St Schmidt--106 S-S (1905) 1938 SF10 Chiriguano SF10
Chané SF3

C
Ce
226
[191]

/44 cont./The also fish with hooks, which today they obtain from the whites. But it may be that the hook is an implement of their ancient culture (208). In

208. Nord. 2, p. 44.

addition, they fish by means of deep nets like those of the neighboring Chaco tribes, such as the Chorote, the Chiriguí, the Matako, and the Toba (209). They also fish with arrows

209. Nord. 2, p. 43. Métraux I, p. 350, Fig. 80.

and formerly with spears with two points. On his trip in 1901-1902, v. Rosen acquired one specimen of these spears from the Chiriguano, which he has described and shown in a sketch (210).

210. V. Rosen, op. cit., p. 214 and Fig. 216.

C
Ce
229
411

Among the Chiriguano and Chané arrows specifically for fishing, we must distinguish two different kinds, one for larger fish, with two dentate wooden points (211), and the other for

211. Nord. 2, Fig. 15b. V. Rosen, op. cit., Figs. 213 and 214.

small fish, provided at the upper end of the shaft with a large number of cactus spines (212).

212. Nord. 2, Fig. 15a.

St Schmidt--194 E-5 (1935) 1938 SF 0 Chiriguano SF10
Chané SF8
Izozo

/34/

Ce 286 352 126

Nets of the Collection That Are Made with the Technique Called "Knotentechnik" in German. Using the Knot Called Reef Knot in English

I.A. 360. Hammock (276) (Chané of the Parapití). Caraguata.

276. Gift of Mr. Teodoro Rojas.

Length 3.20 m. (Fig. 102c.)

I.A. 766. Hammock (Izozó). Caraguata. Length 1.80 m.

I.A. 794. " " " " 2.70 m.

C Ce 286 411 352 126

I.A. 446. Net for carrying loads (Chiriguano). Wool. Lgth 1.05 m.

I.A. 447. " " " " " " " 0.75 m.

I.A. 561-564, 567, 569-571. Nets for carrying loads (Chiriguano). Caraguata. Length between 1.50 and 0.50 m. (I.A. 567, Figs. 134 and 143; I.A. 568, Fig. 144.)

I.A. 787-787; 790-792. Nets for carrying loads (Izozó). Caraguata. Length 1.60 m. and 0.65 m. (I.A. 788, Figs. 133 and 142; I.A. 772, Fig. 135.)

Ce 411 286 126

I.A. 785. Bag (Izozó). Caraguata. Length 0.82 m. Height 0.48 m.

I.A. 788 " " " " 0.62 m. " 0.62 m. (Fig. 136.)

I.A. 793. Quadrangular net (Izozó). Caraguata. Length 0.90 m.

Ce [229]

I.A. 794. Implement for fishing with net (Izozó). Length 73.5 cm. (Fig. 39.)

I.A. 795-801. Nets for implements such as I.A. 764 (Izozó). Caraguata.

C 411 286

I.A. 508. Sling (Chiriguano). Caraguata. Length 15 cm.

I.A. 509. " " " " 14 cm.

Ce 286 352 229 136

From the large size of the mesh of nets I.A. 360, 766, and 794, it follows that they are hammocks. Because in Chiriguano and Chané territory there are generally no fish except small ones, nets for fishing must have considerably smaller meshes.

Ce 411 286 352 [283]

Of the Chiriguano nets for carrying loads, two are made of wool and one of these has a band like most such nets from the Izozó. The rest of these nets from the Chiriguano and the Izozó are made of caraguata thread. Some of them have a rather small mesh, but among those of the Izozó those with big mesh are the rule.

Ce 846 /88 cont./ but no meat (349). Later he can eat sweet potatoes. When the

Ce 553 551 603

349. See Métraux I, p. 320, note 3.

baby begins to walk, he is given one name at most, not by his parents, but by his grandparents. Nicknames are often added to the proper name later (350). Orphans are brought up by their

Ce 736

350. Nord. 1, p. 208.

relatives (351).

351. Nord. 1, p. 210.

C 721 From the time they first immigrated to the Sierra de la Cordillera, the Chiriguano, that is, their parcialidades, made war or attacks on the neighboring Indian tribes or the Spaniards. In the historical sketch placed at the beginning of this work, I have described these hostilities in broad outline. Their weapons C [411] 701 [729] of war were bows and arrows and the club. The caciques were also war chiefs. According to what one Chané cacique told Nordenskiöld, these Indians formerly had the custom of bringing home the heads of their dead enemies and of showing them during the fiestas in the town square (352). The Chiriguano capacity

C 175 721

352. Nord. 1, p. 172.

for war was still recognized by the Spaniards in the 16th century. In the "Declaración de Sebastián Pérez Chamoso" in 1571, it is said of them: "With the inventions and tricks and mode of war that they have, they have done and are doing said damages unto the Spaniards, Indians, and workers that are in the said fields" (353).

353. Moreno II, p. 107.

C 726 Before the Chiriguano launched their attack upon King Guacane, they reconnoitered with spies the Llanos of Grigota where the